



# green begets blue

*Turning Brownfields into Greenfields-The Energy of Synergy*



# Synergism

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**Synergism** \'sin-er-,jiz-em\ n: joint action of discrete agencies in which the total effect is greater than the sum of their effects when acting independently.

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1+1+1+1 Equals a Dozen

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# Synergistic Returns

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- Parks and Open Space;
- Nature Preserves, Wildlife Habitat;
- Alternative Transportation Corridors, Recreational Trails, Community Connectivity Enhancements;
- 21<sup>st</sup> Century Economic Development
- Neighborhood Stabilization and Revitalization;
- Environmental Education;
- InSitu Brownfield Remediation and Reclamation

# Gas Works Park

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Seattle, WA

- SITE: Former coal gasification plant owned by Seattle Gas Co.
- CURRENT USE: 22 acre park opened in 1975
- CONTAMINATION: Groundwater and soil contamination -
- REMEDIATION: Capped and Bioremediation, undergoing additional work.
- FUNDING: \$1.75M Bond Issue, \$591K CDBG
- END USER: Seattle Department of Parks and Recreation





Gas Works Park, Seattle, WA





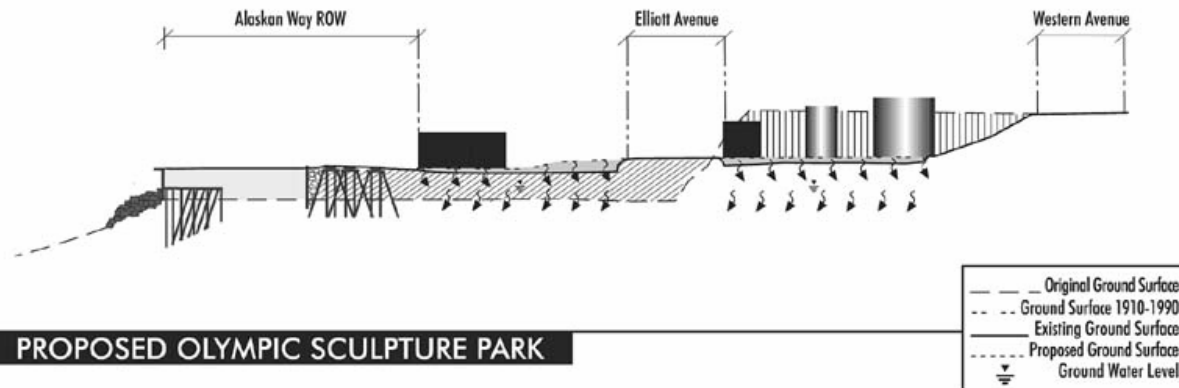
Gas Works Park, Seattle, WA

# Olympic Sculpture Park

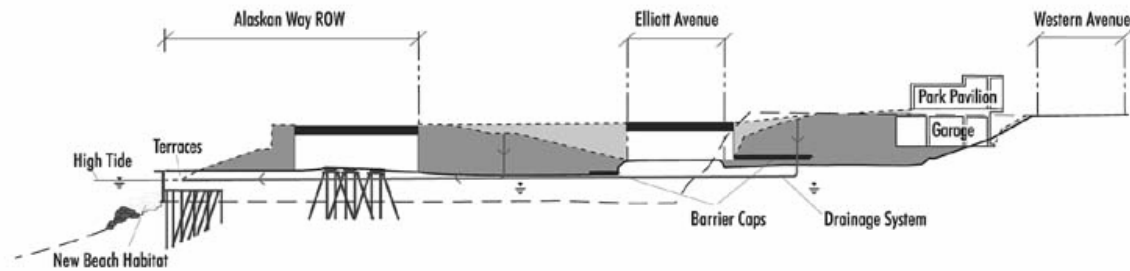
Seattle, WA

- SITE: Former Unocal fuel handling site
- CURRENT USE: 8.5 acre park
- CONTAMINATION: Soil contamination
- REMEDIATION: Capped and Bioremediation
- END USER: Seattle Art Museum

## HISTORICAL SITE CONDITIONS



## PROPOSED OLYMPIC SCULPTURE PARK



Olympic Sculpture Park, Seattle, WA

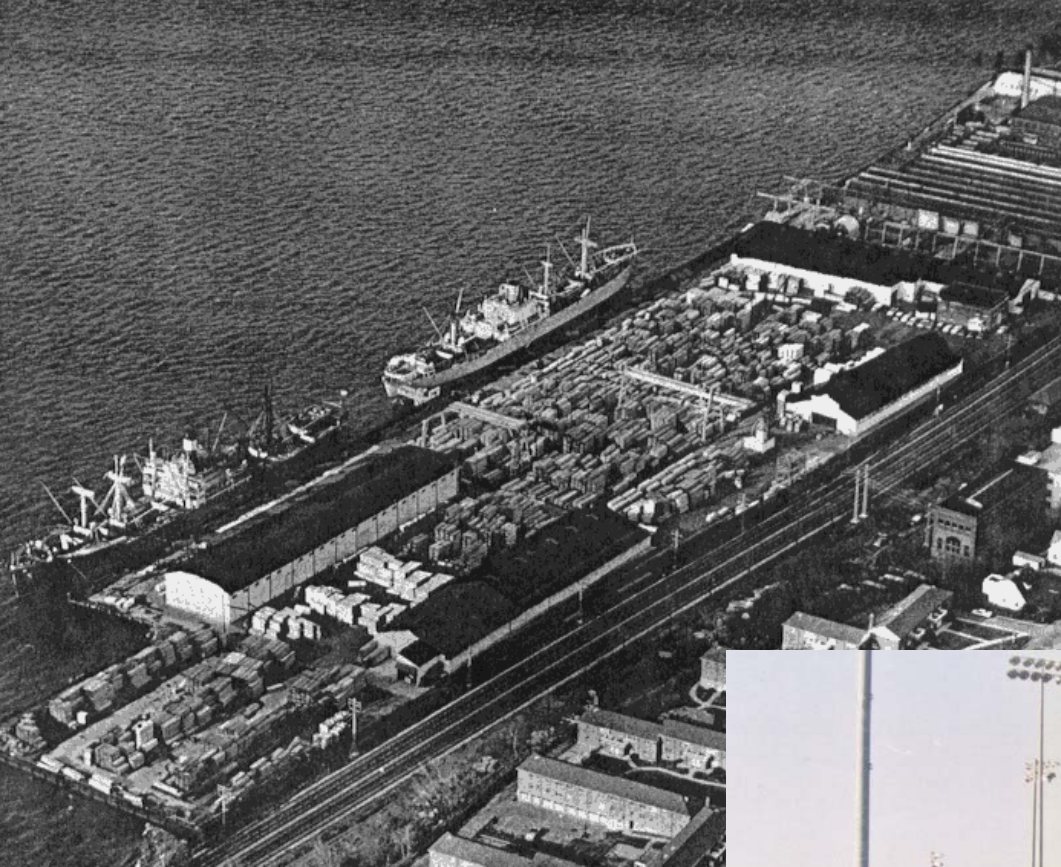


# Scenic Hudson Park

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Irvington, NY

- SITE: Former lumber yard and bus depot
- CONTAMINATION: Lead, petroleum and failing septic
- REMEDIATION: close septic and cap soil
- FUNDING: \$3.6M bond issue
- END USER: City of Irvington



Scenic Hudson Park, Irvington, NY



# Northside Treatment Plant

Denver, CO

SITE: Former wastewater treatment plant adjacent to Superfund site, 52 acres

- CONTAMINATION: Heavy metals from adjacent site
- REMEDIATION: Superfund activities
- FUNDING: \$7M from local EDA and City, \$650K State and Federal funds
- END USER: Denver Parks



Northside Treatment Plant, Denver, CO





# Olympic Village

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Sydney, Australia

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Olympic Village, Sydney, Australia





This was a very difficult site—a heavy industrial site prior to this.... There's the reclaimed water. —ASLA jury comment

THE OLYMPIC BOULEVARD, left, terminates in the Northern Water Feature, left and above. Stormwater collected from the paved areas is cleansed in the wetlands through a system of ponds and wetland plants.

Olympic Village, Sydney, Australia





Olympic Village, Sydney, Australia



# Old Works Site

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Anaconda, MT

- SITE: Arco Superfund site of copper smelter, 1,700 acres
- CONTAMINATION: Primarily arsenic
- REMEDIATION: Cap of limestone and topsoil
- FUNDING: \$30M for remediation, \$11M golf course, \$700K golf course and trails
- END USER: Jack Nicklaus golf course and park, owned by County

Old Works Site, Anaconda, MT





# McDoel Switchyard Park

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Bloomington, IN

- SITE: Former CSX Corridor and Switchyard, Total 3.2 mile length
- CONTAMINATION: Arsenic, creosote, PCB's, mercury, petrochemicals
- REMEDIATION: Topsoil cap, Phyto-remediation
- FUNDING: \$20-35M
- END USER: City of Bloomington





McDoel Switchyard, Bloomington, IN





McDoel Switchyard, Bloomington, IN



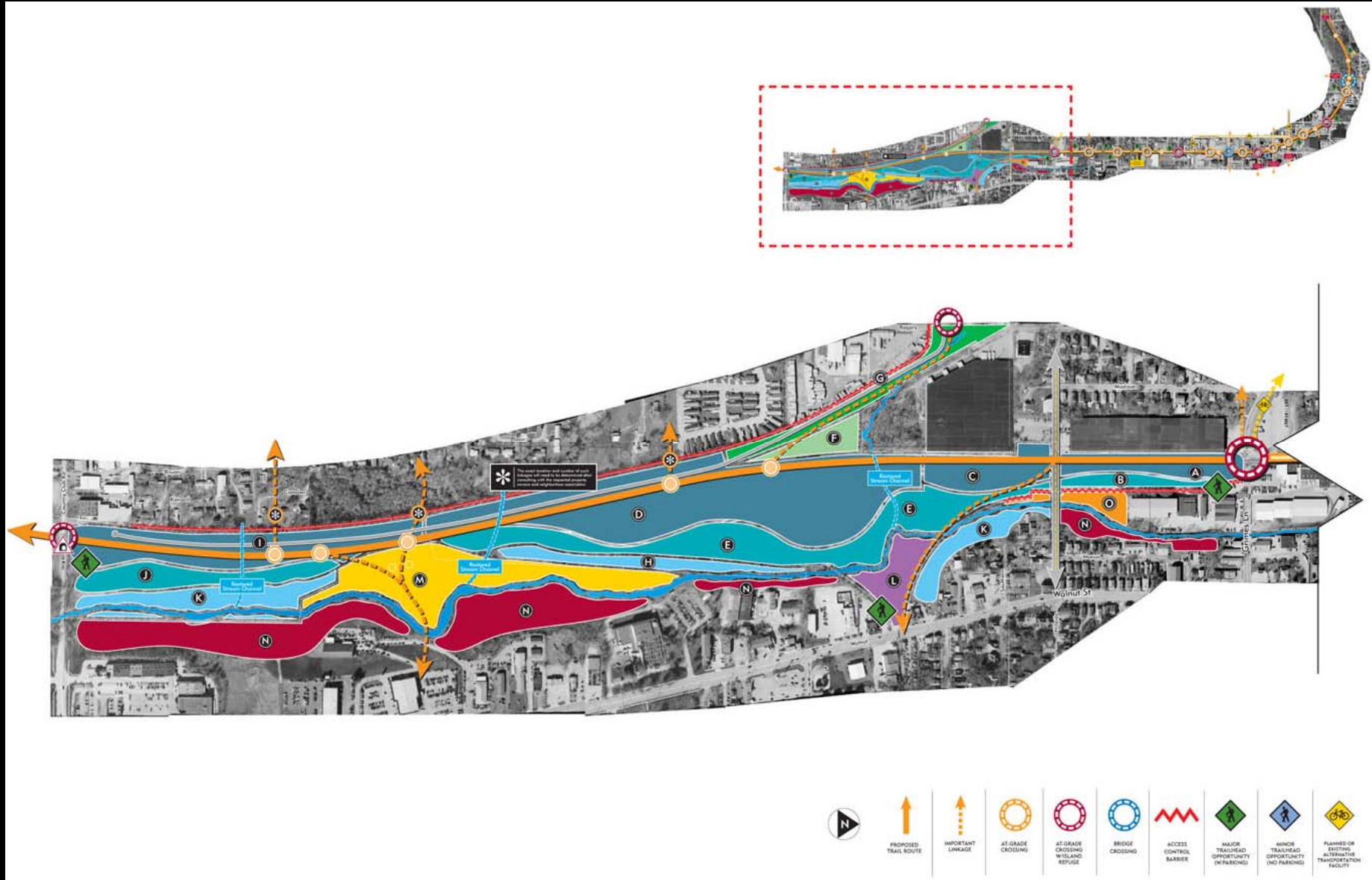


McDoel Switchyard, Bloomington, IN



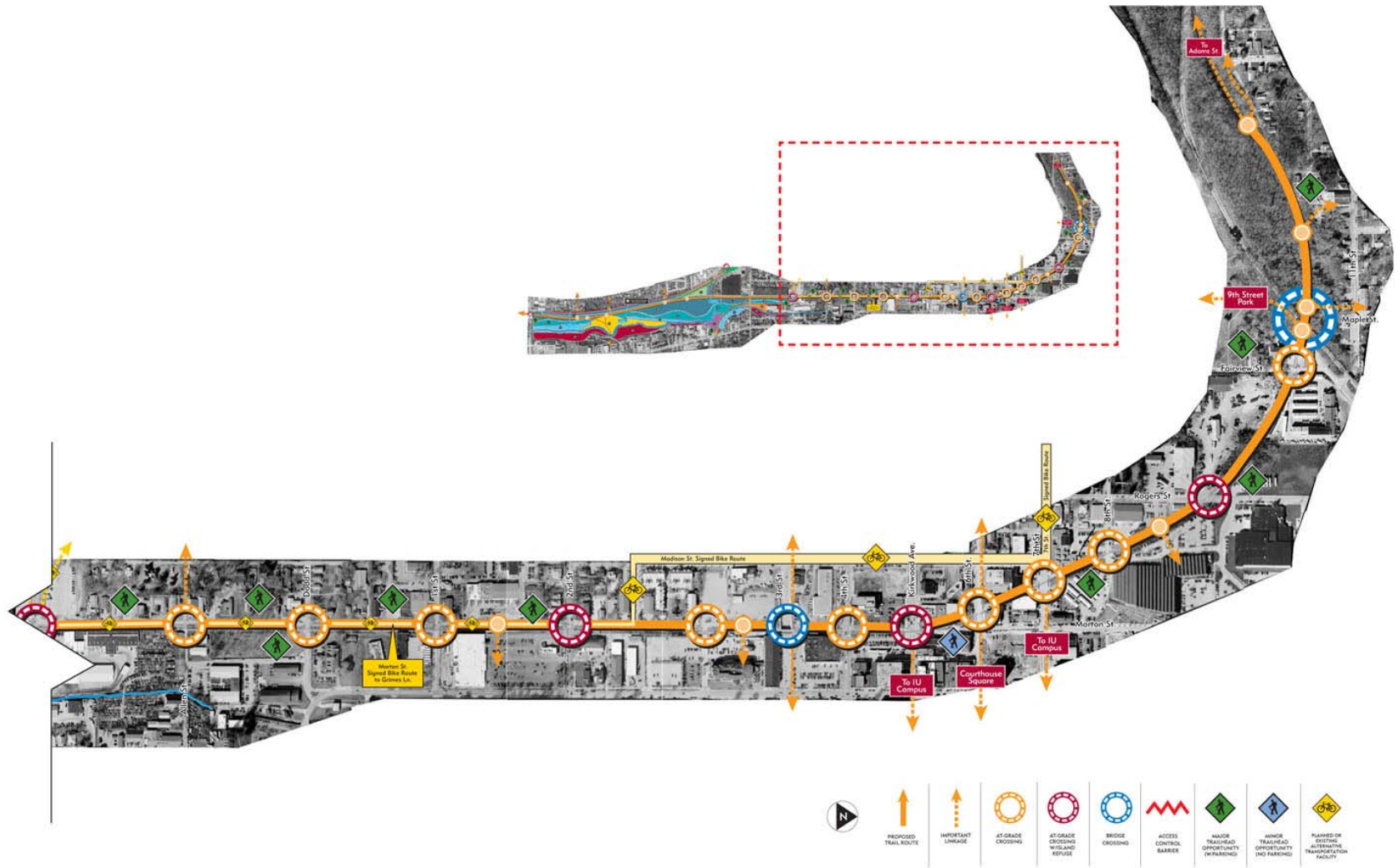


McDoel Switchyard, Bloomington, IN



McDoel Switchyard, Bloomington, IN



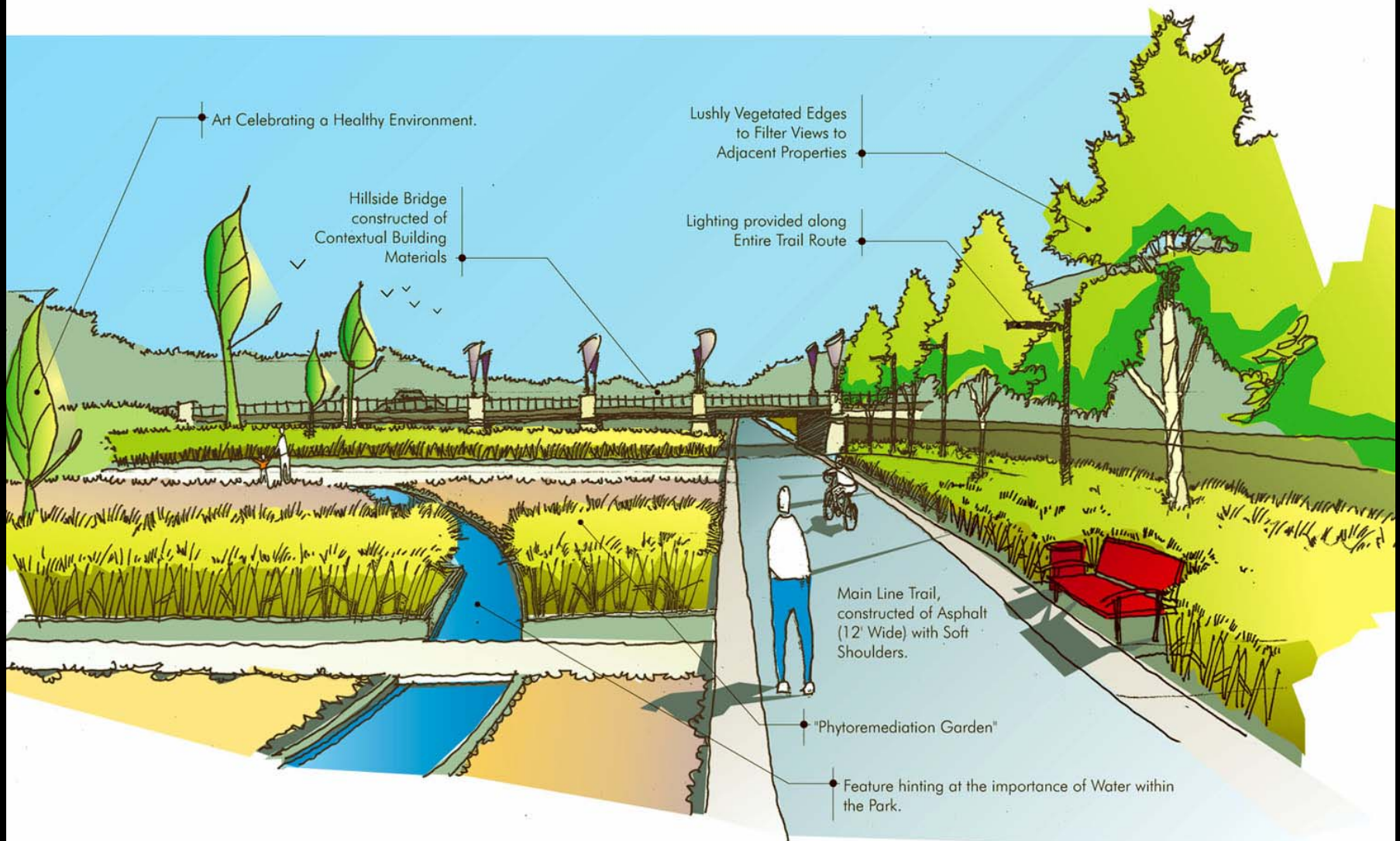


McDoel Switchyard, Bloomington, IN



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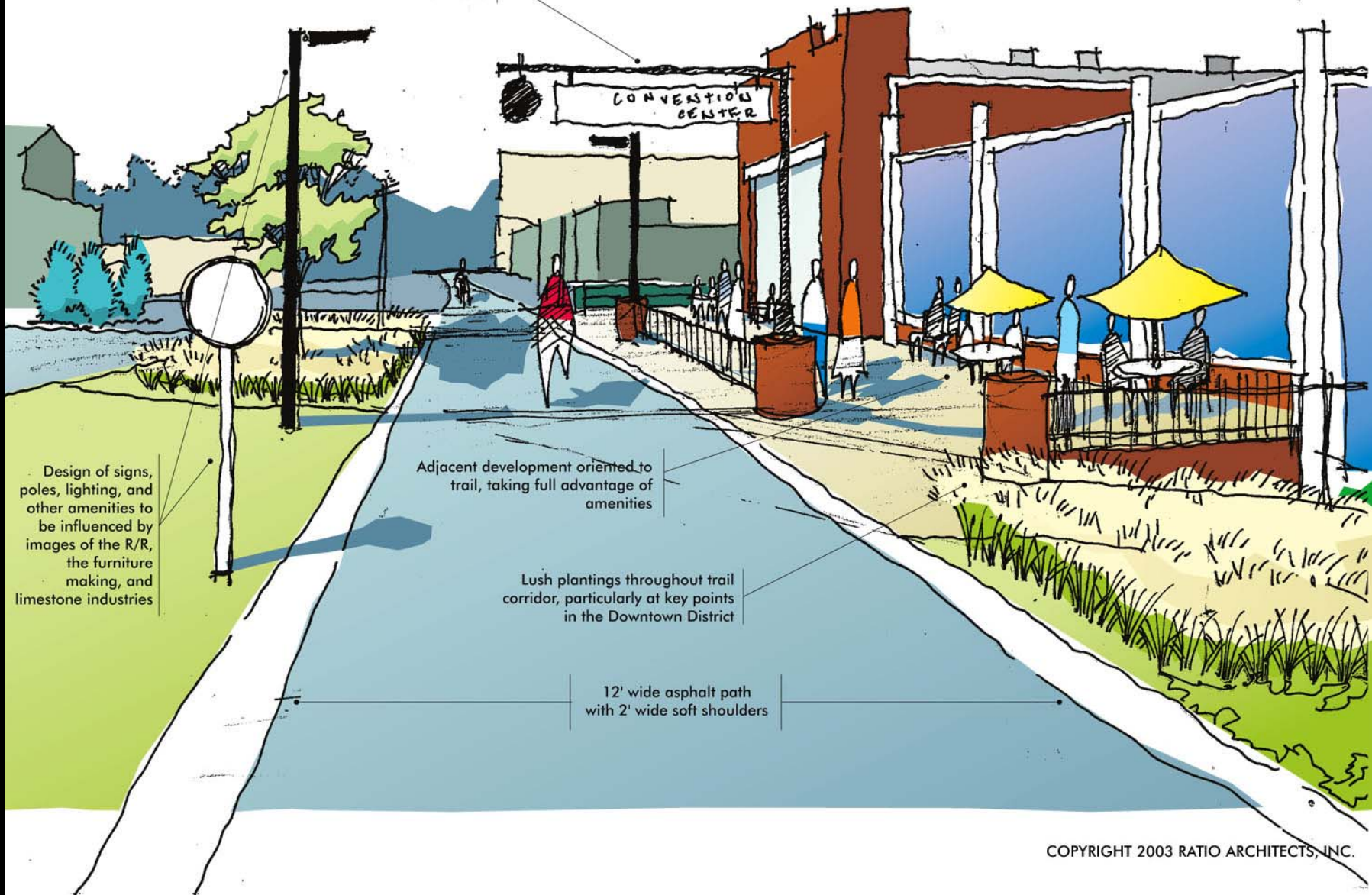
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Gateway elements announce districts and attractions along the trail route



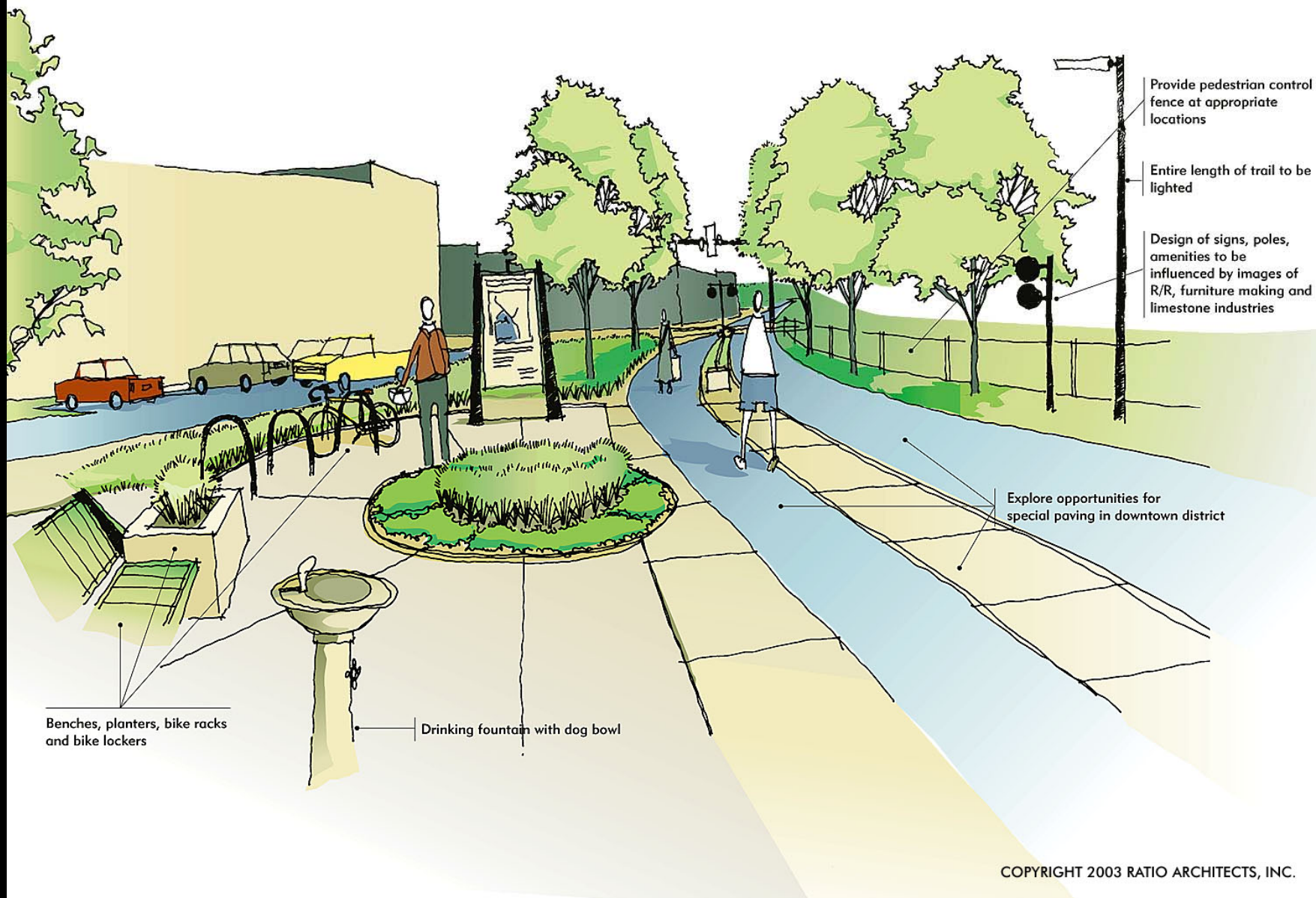
Design of signs, poles, lighting, and other amenities to be influenced by images of the R/R, the furniture making, and limestone industries

Adjacent development oriented to trail, taking full advantage of amenities

Lush plantings throughout trail corridor, particularly at key points in the Downtown District

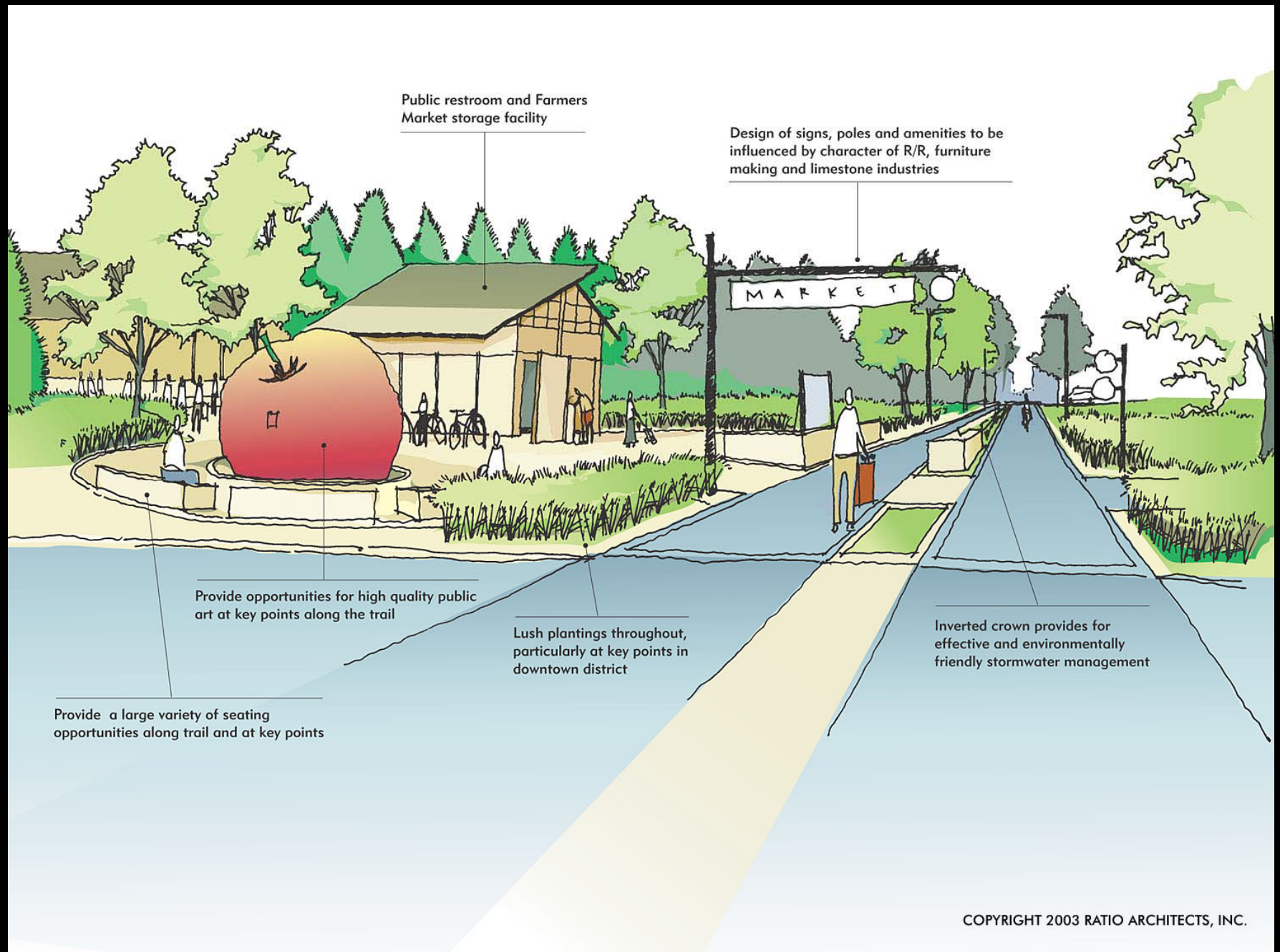
12' wide asphalt path with 2' wide soft shoulders

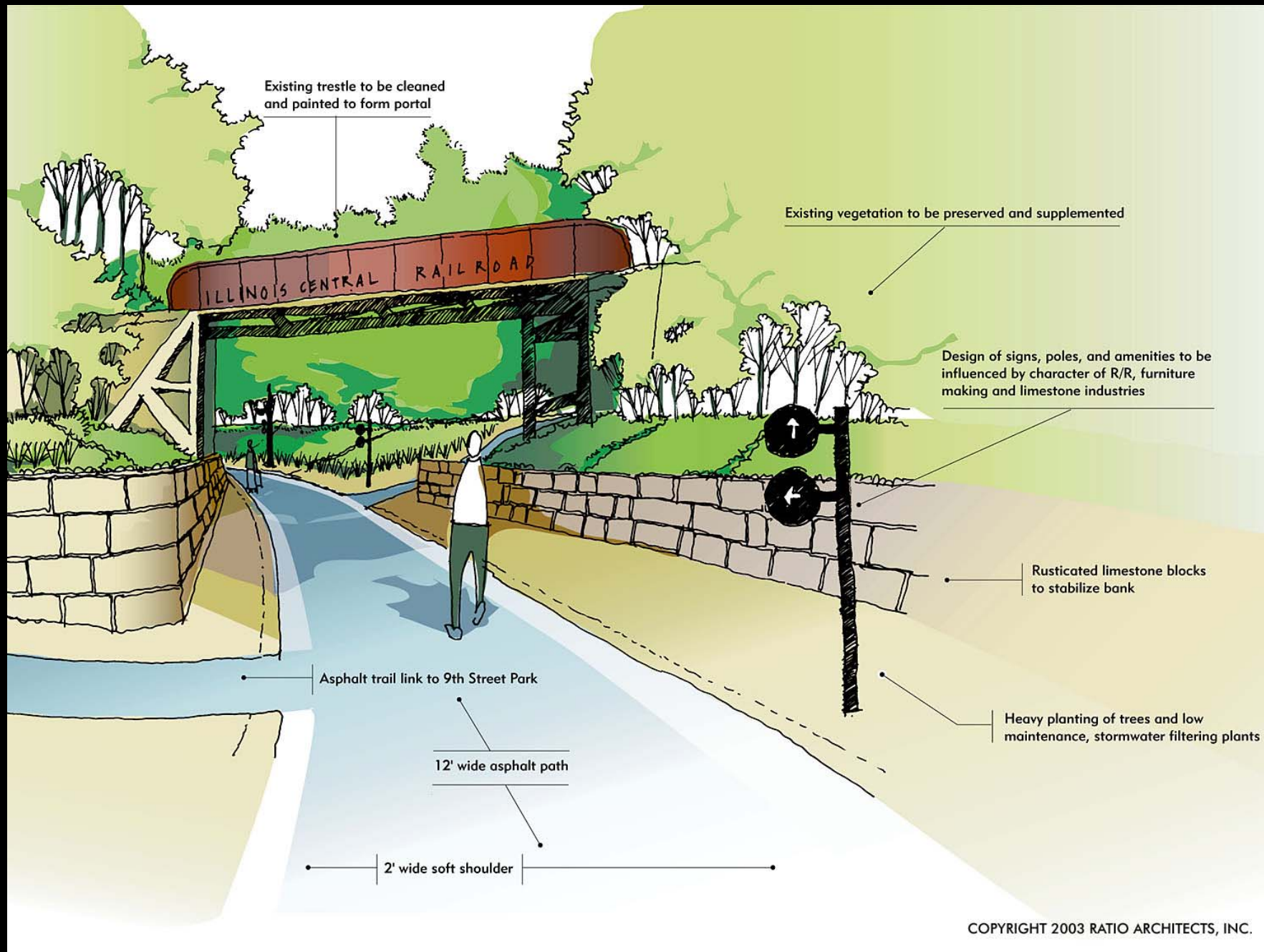
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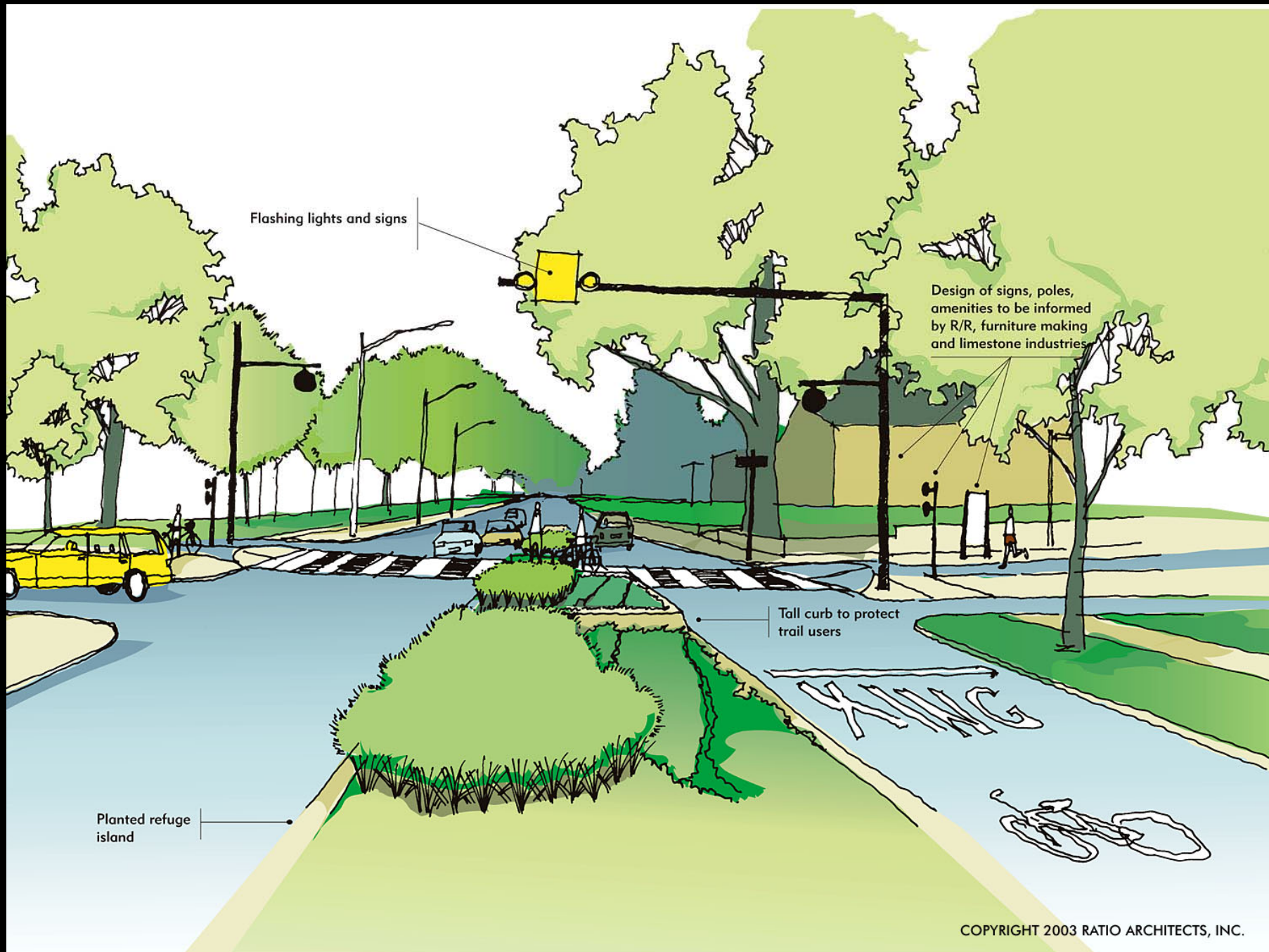
McDoel Switchyard, Bloomington, IN



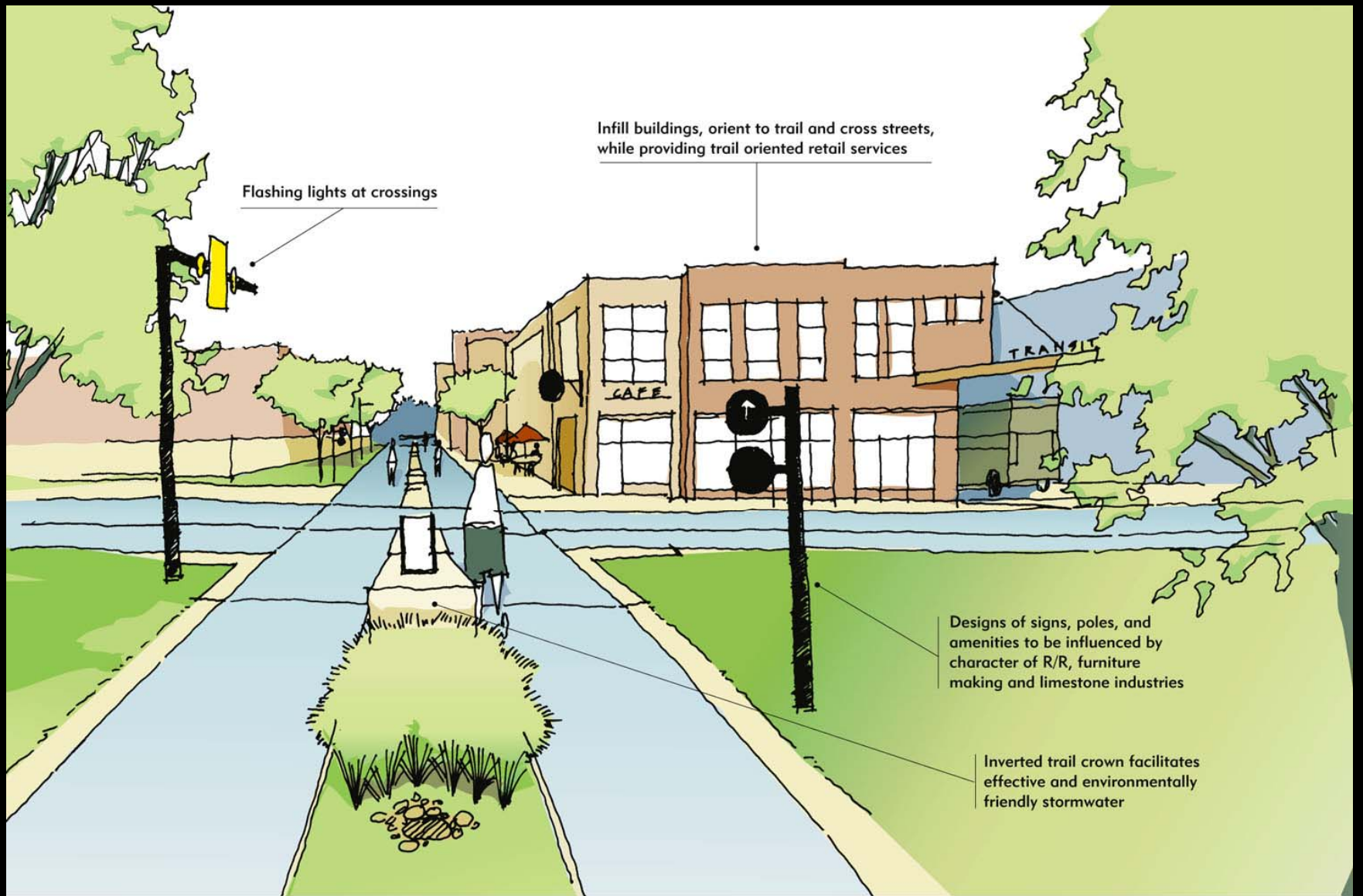






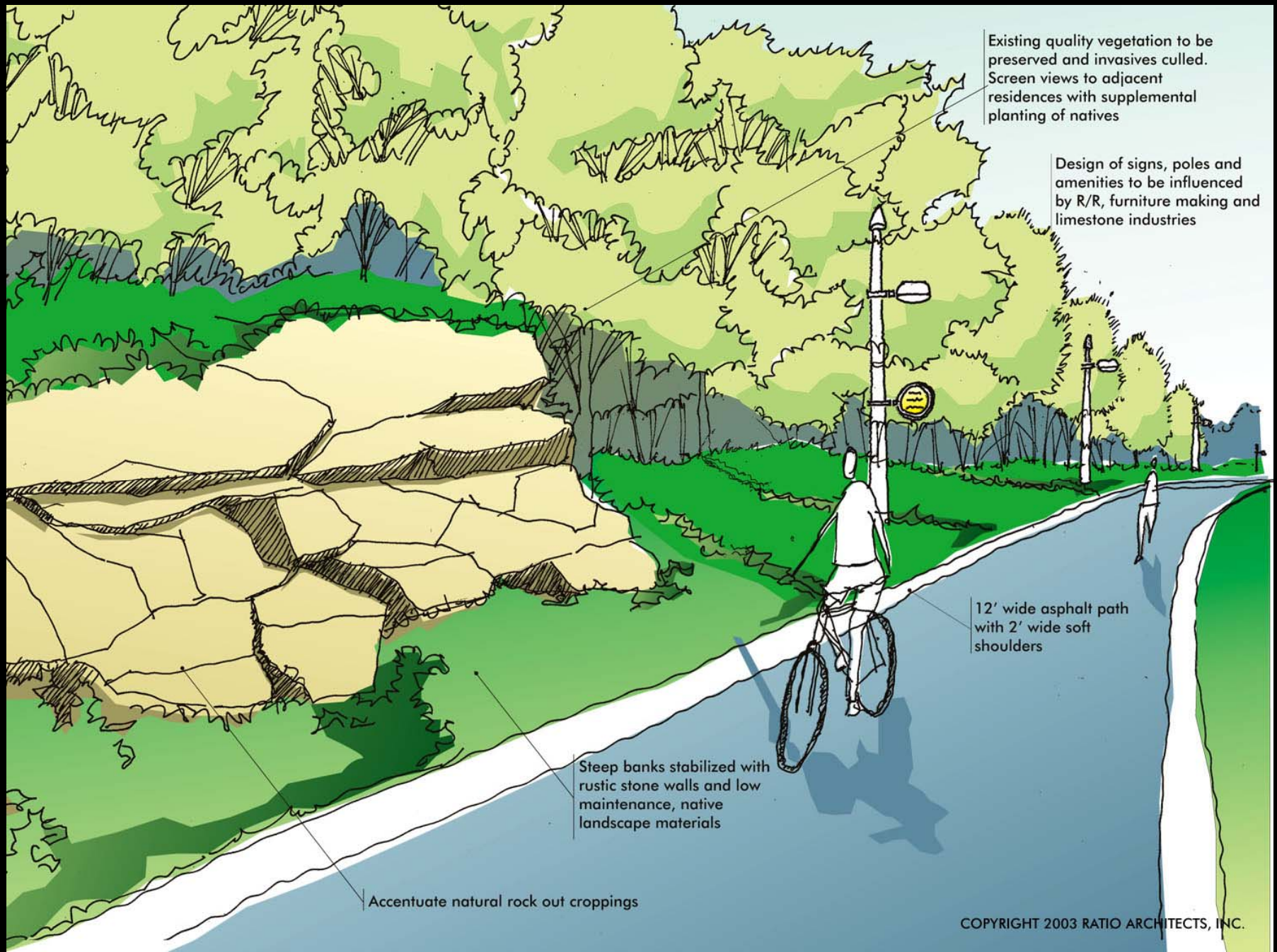


McDoel Switchyard, Bloomington, IN



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Existing quality vegetation to be preserved and invasives culled. Screen views to adjacent residences with supplemental planting of natives

Design of signs, poles and amenities to be influenced by R/R, furniture making and limestone industries

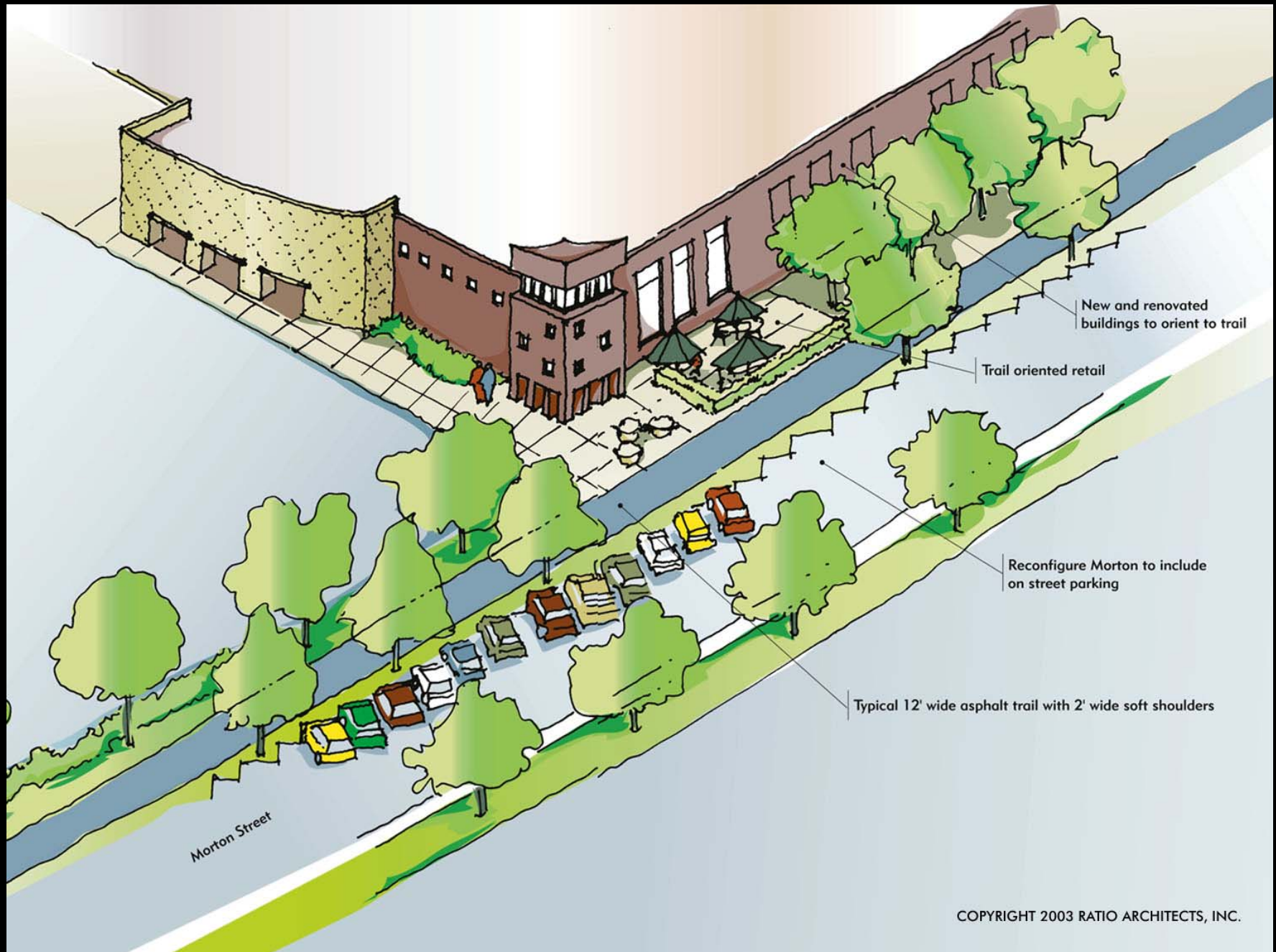
12' wide asphalt path with 2' wide soft shoulders

Steep banks stabilized with rustic stone walls and low maintenance, native landscape materials

Accentuate natural rock out croppings

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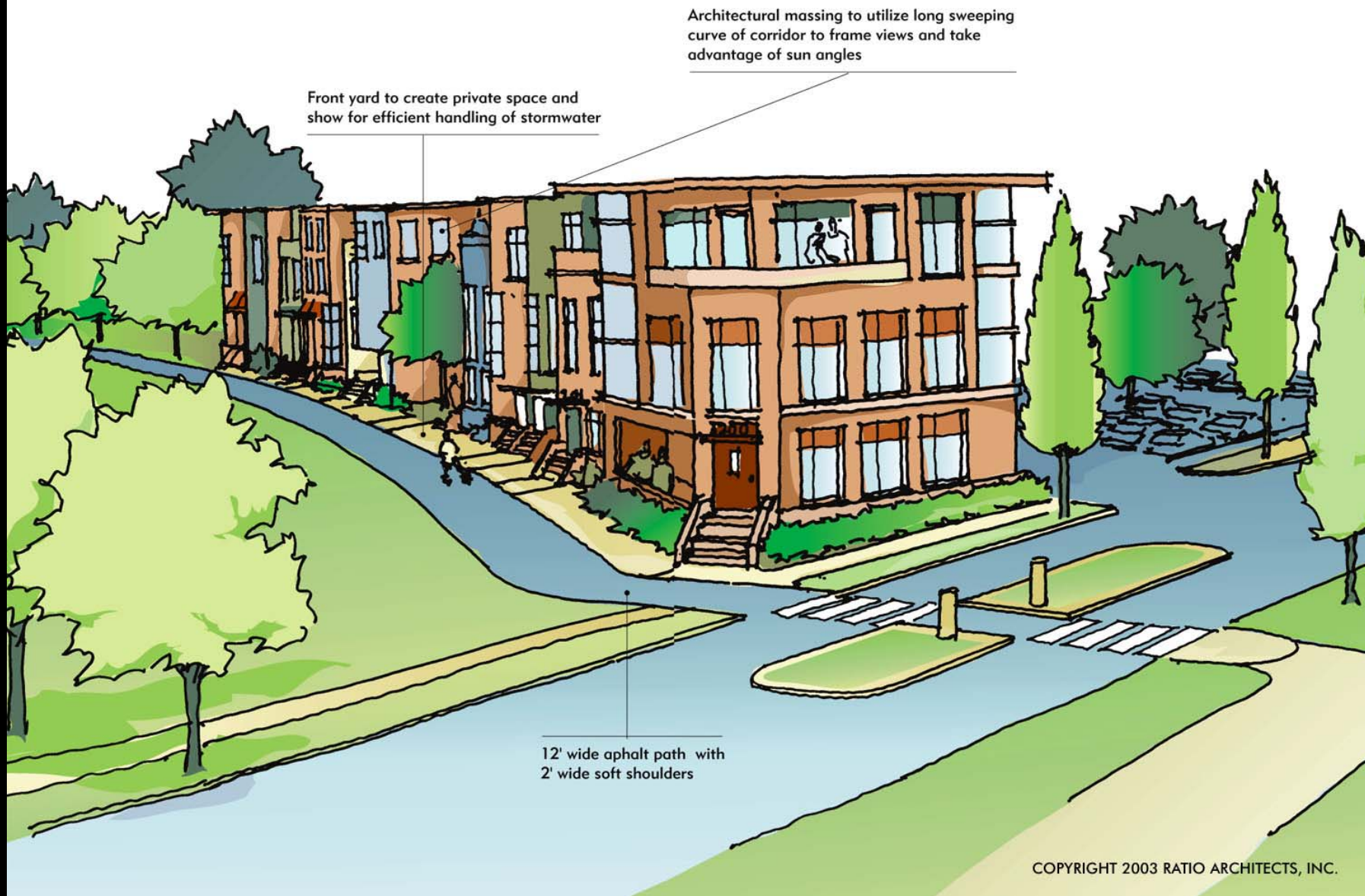


McDoel Switchyard, Bloomington, IN





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Architectural massing to utilize long sweeping curve of corridor to frame views and take advantage of sun angles

Front yard to create private space and show for efficient handling of stormwater

12' wide asphalt path with 2' wide soft shoulders

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Design of signs, poles, lighting,  
and other amenities to be  
influenced by images of the R/R,  
the furniture making, and  
limestone industries



Downtown District  
provides opportunities  
for unique lighting  
environment

Explore opportunities for special  
paving in the Downtown District

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# Benefits of Turning Brownfields into Parks

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- Finding lost space for recreation
- Interpreting our industrial past
- Opportunities for tourism and promotion
- Leveraging multiple funding sources
- Park improvements can be part of the overall funding for remediation
- Integrating fragmented neighborhoods
- Opportunities to use natural systems for remediation
- Restored sites create an image of a progressive community



# Challenges of Turning Brownfields into Parks

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- Competing development interests can raise property costs
- Long term maintenance and follow up remediation
- Long term property management and programming
- Funding
- Creating uses that are viable within the marketplace
- Need to create groups that are capable of implementation
- Typical property ownership issues, etc.



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